THE ANALYSIS OF SOIL PROPERTIES AND QUALITY IN JIJIA'S UPPER BASIN

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Abstract
The study of soil properties, according to the distribution of soilscapes and of soil forming factors and processes, is essential for the modern spatial analysis of the soil cover and for its integration in the soil mapping process. Thus, soil forming and soil evolution processes, determined by the complex of factors and by the physical and chemical characteristics of soils (expressed by soil reaction, organic matter, contents of carbonates, nitrogen, phosphorous, potassium), represent the criteria in establishing diagnoses and classifying soils from the Jijia upper basin. On the territory of Hilişeu township have been identified 49 soil units, belonging to Protisols, Chernisols, Luvisols, Hidrisols and Anthrisols. Chernisols dominate this repartition, with over 40%, being followed by Luvisols. Gleysols are also well represented, being developed in the floodplains of Jijia and its tributaries. A general characteristic of soils from the studied territory is the high clay content, even from the soil surface, as well as the low humus reserve in the upper horizons. The present paper approached the identification of soils' qualitative aspects in the area, as well as the correlation with the morphometric or land use parameters, having in view the strong conditioning of the soil properties by the landscape of the region. In what regards soil quality, the area is dominated by the 2nd and 3rd quality classes, each with about 40% and 37%, being followed by the 4th (19%) and 5th (4%) classes. The lower quality of these soils is given mainly by erosion and by the gleyzation-stagnogleyzation processes.

Key words: soil quality, physical and chemical indicators, Hilişeu

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